DOCKET ESE9E260

FIG.1

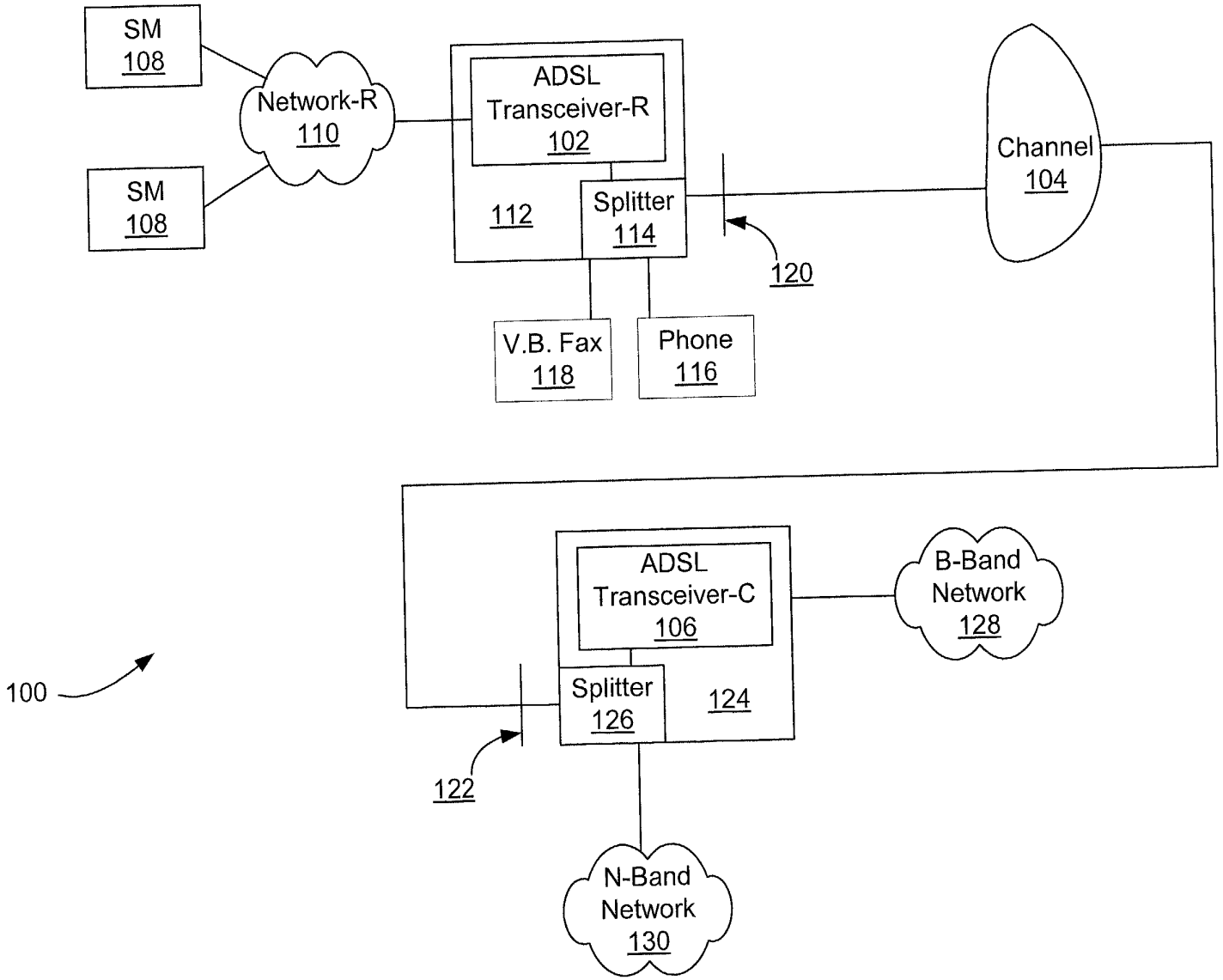


FIG. 2

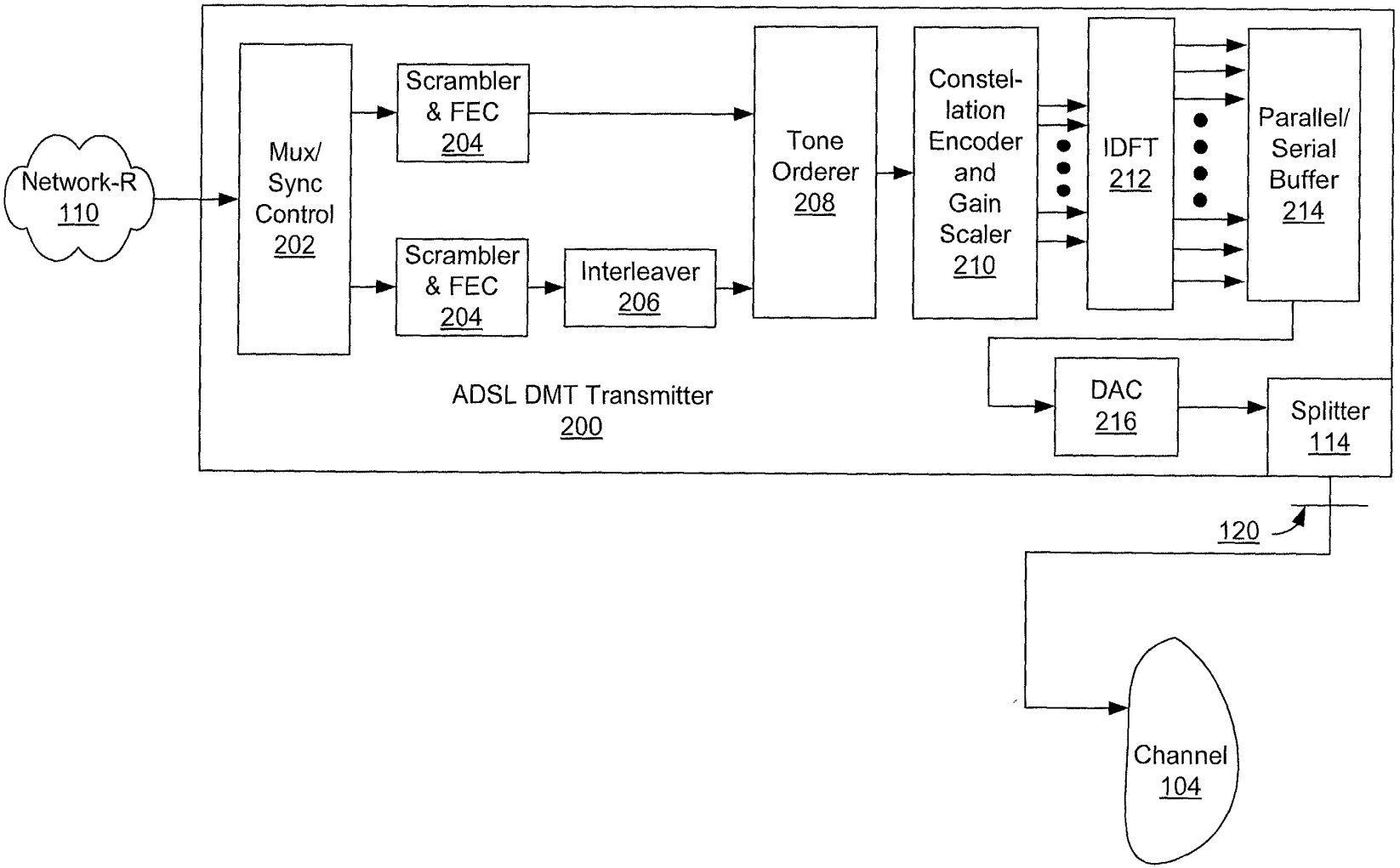
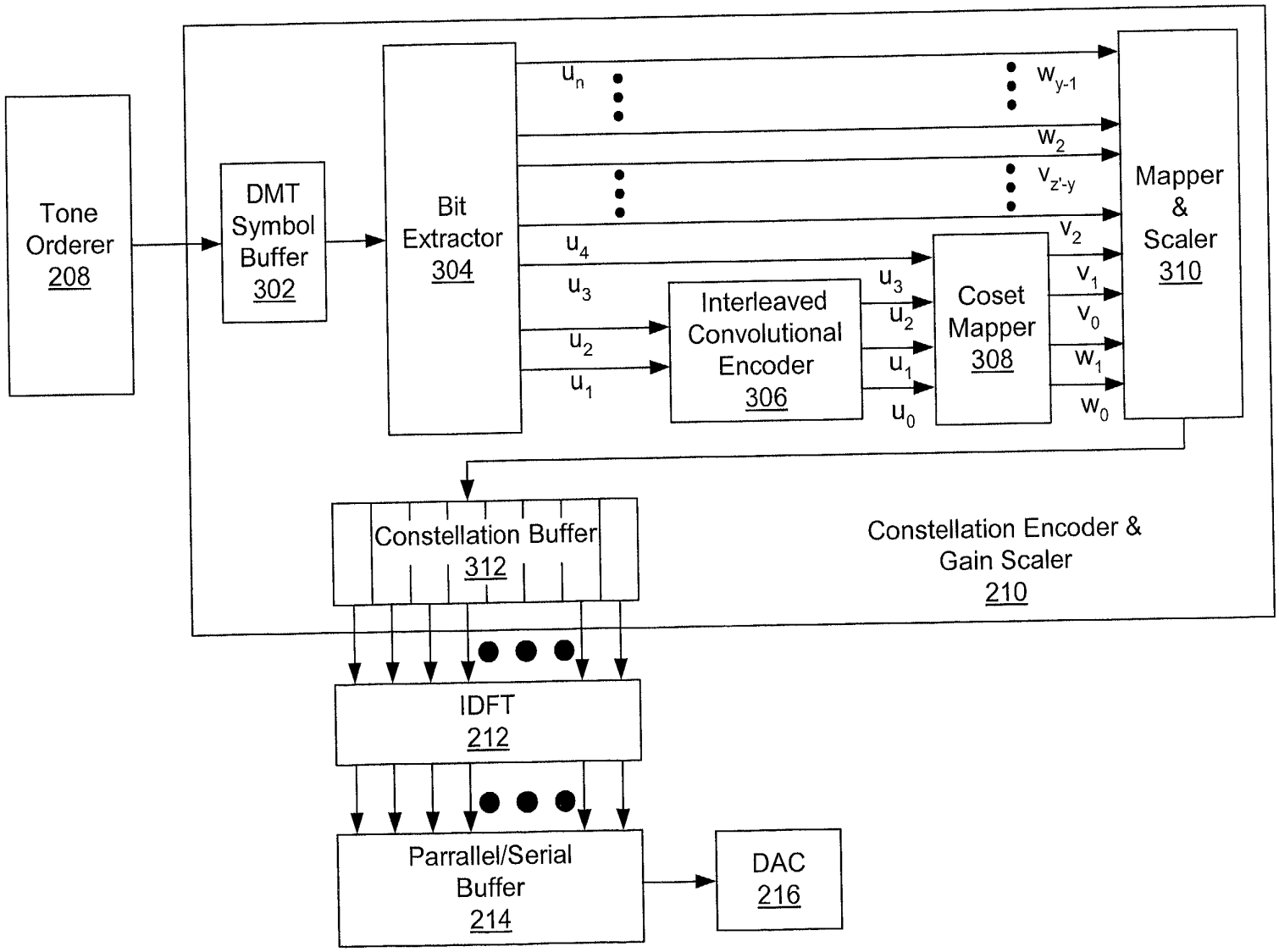
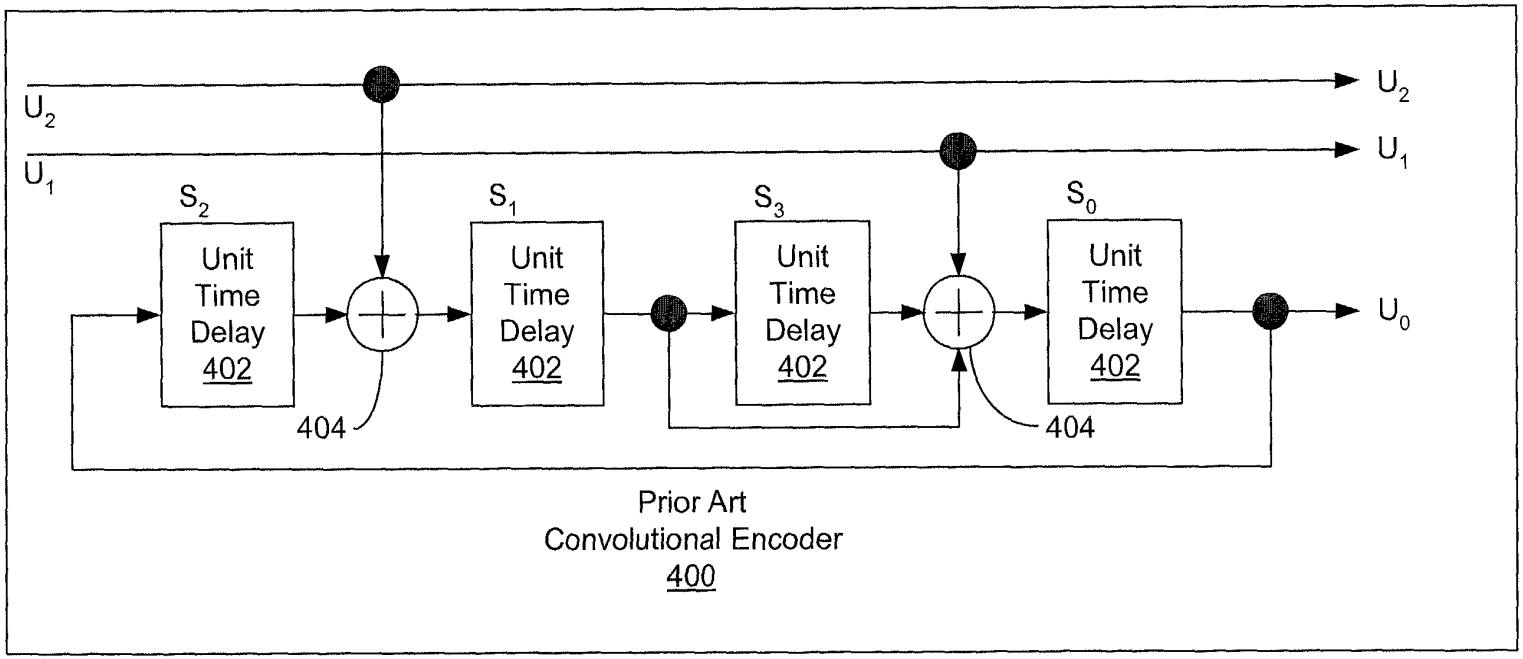

Network-R
110
Mux/
Sync
Control
202
Scrambler
& FEC
204
Scrambler
& FEC
204
Interleaver
206
Tone
Orderer
208
Constel-
lation
Encoder
and
Gain
Scaler
210
IDFT
212
Parallel/
Serial
Buffer
214
DAC
216
Splitter
114
ADSL DMT Transmitter
200
120
Channel
104

FIG. 3


Tone Orderer 208
DMT Symbol Buffer 302
Bit Extractor 304
Interleaved Convolutional Encoder 306
Coset Mapper 308
Mapper & Scaler 310
Constellation Buffer 312
Constellation Encoder & Gain Scaler 210
IDFT 212
Parrallel/Serial Buffer 214
DAC 216
u_n
u_4
u_3
u_2
u_1
u_3
u_2
u_1
u_0
w_{y-1}
w_2
$v_{z'-y}$
v_2
v_1
v_0
w_1
w_0

00T27"E5E9E260

FIG. 4



Docket: ESES/060

FIG. 5

Discrete Multitone Interleaver
(First Embodiment)

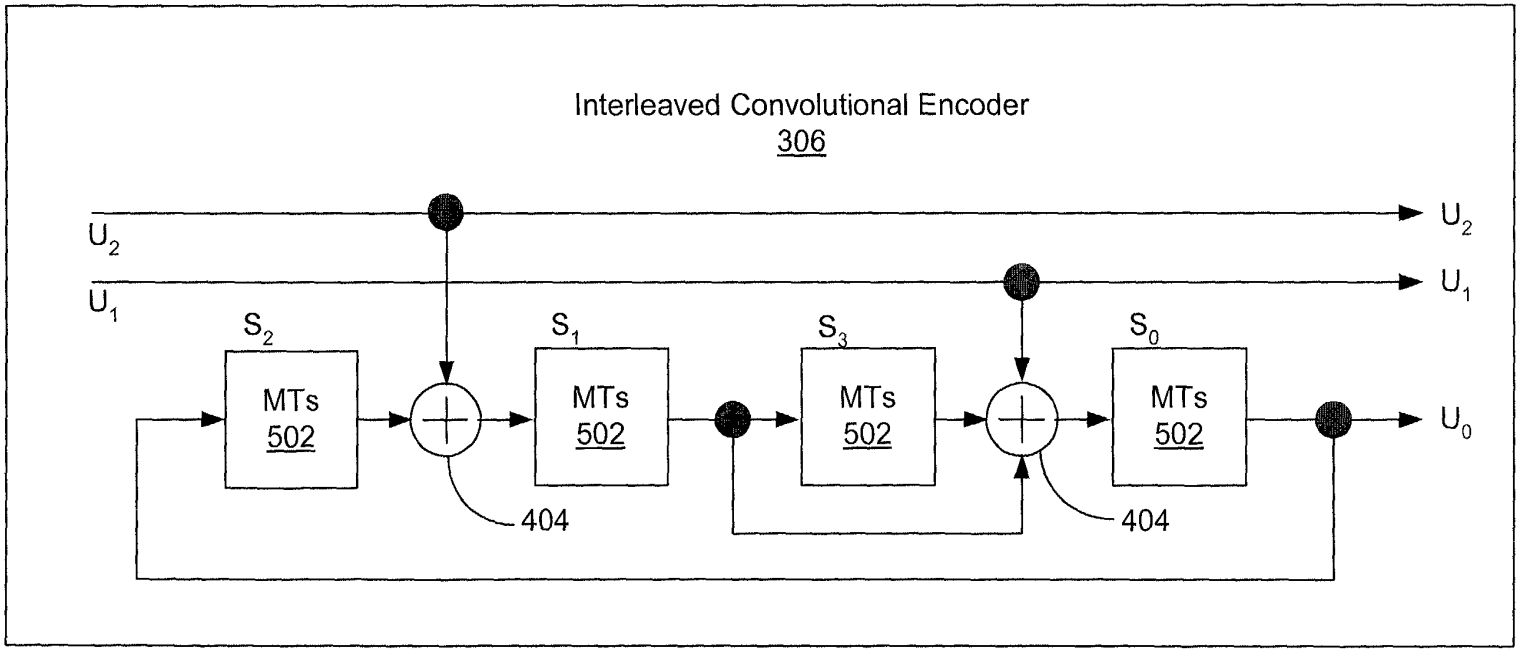


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FIG. 6

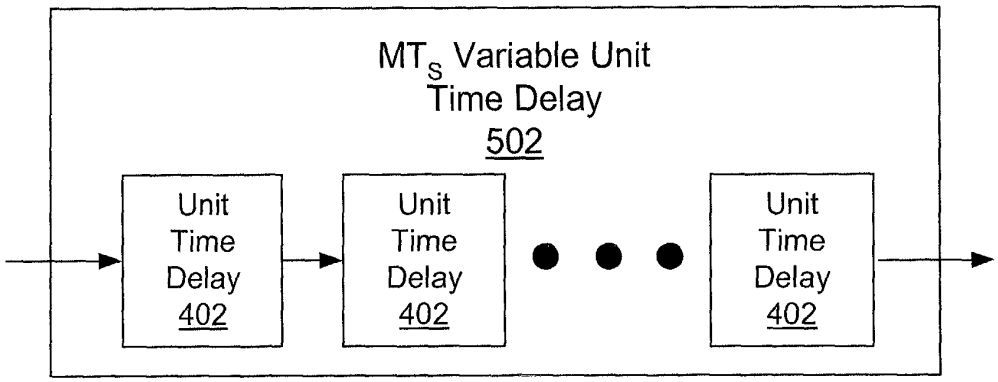
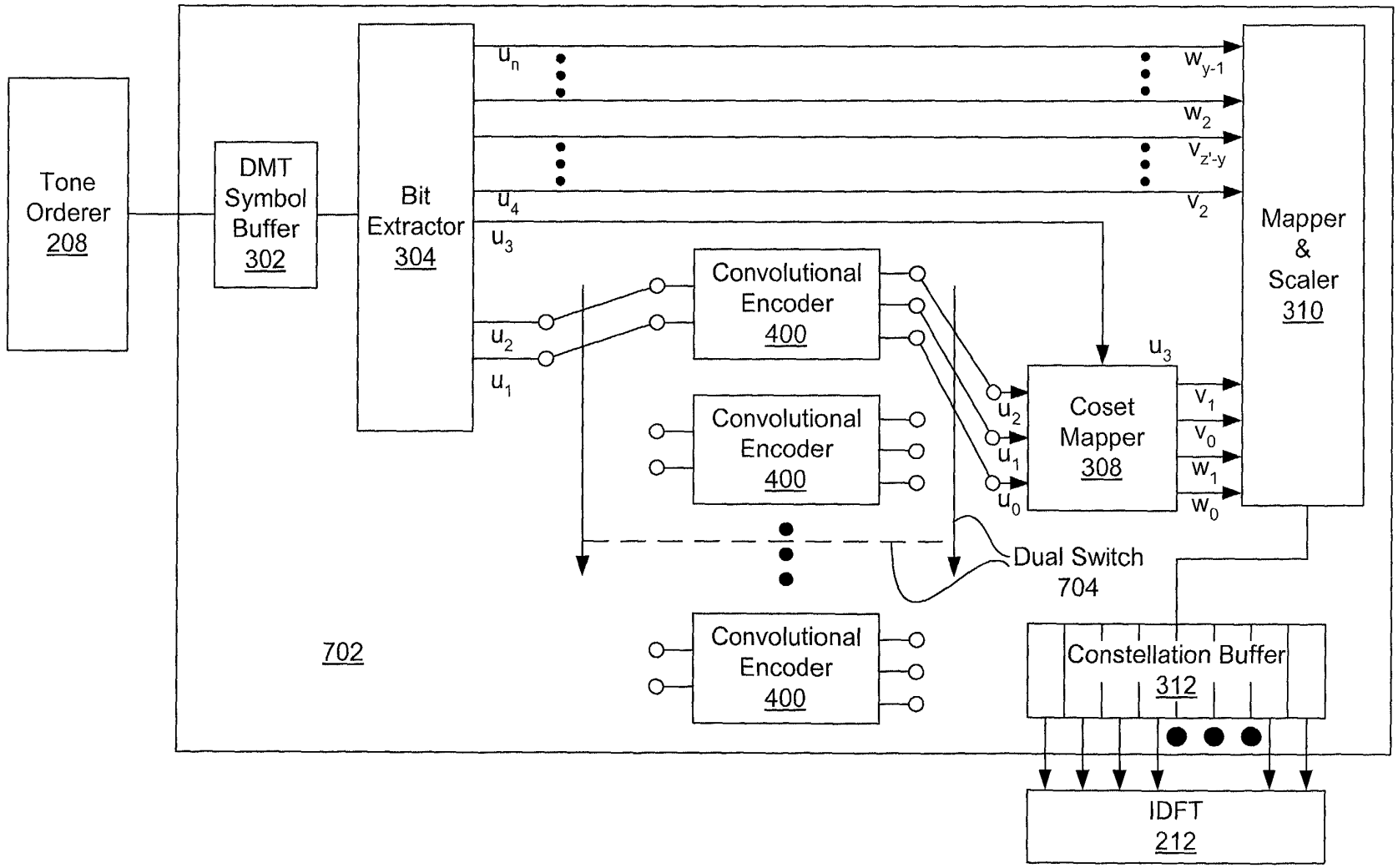


FIG. 7

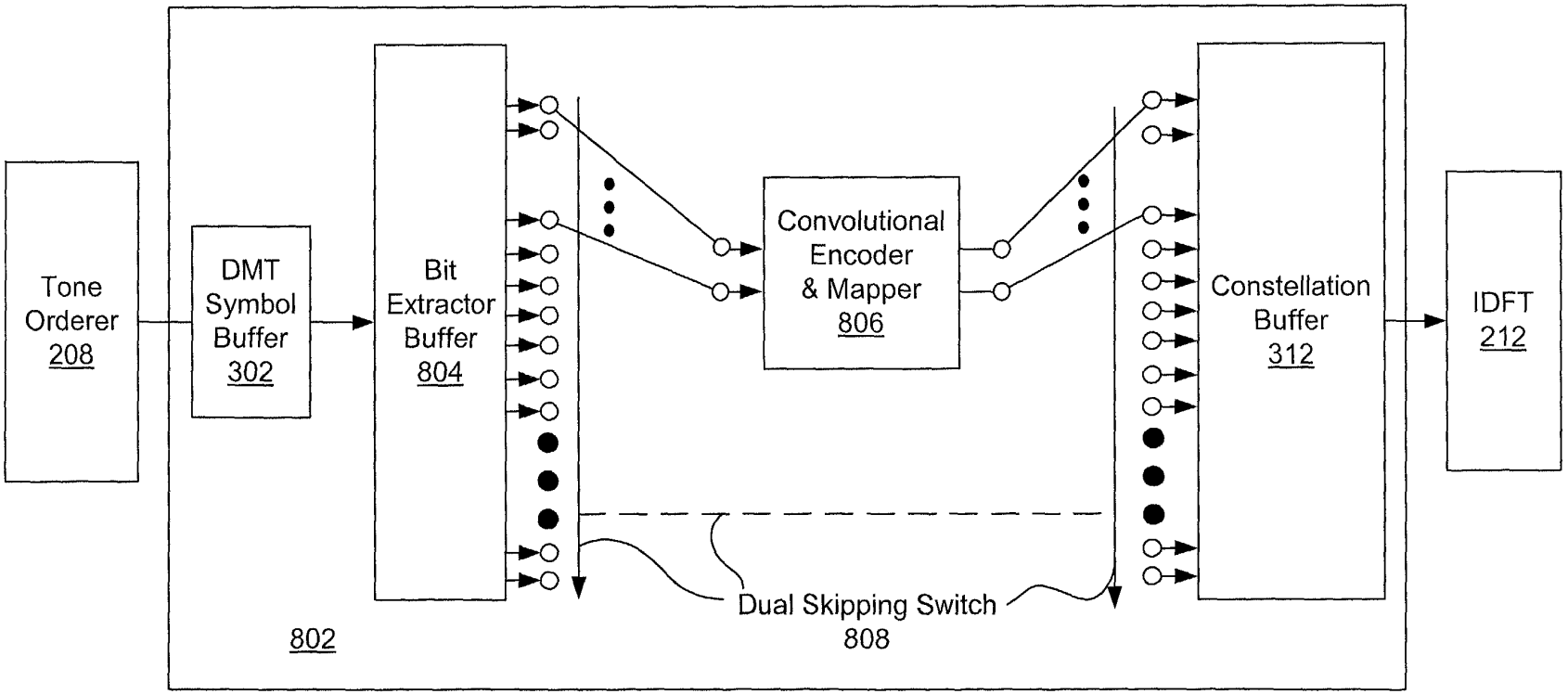
Discrete Multitone Interleaver
(Second Embodiment)



00h727 "6S69E760

FIG. 8

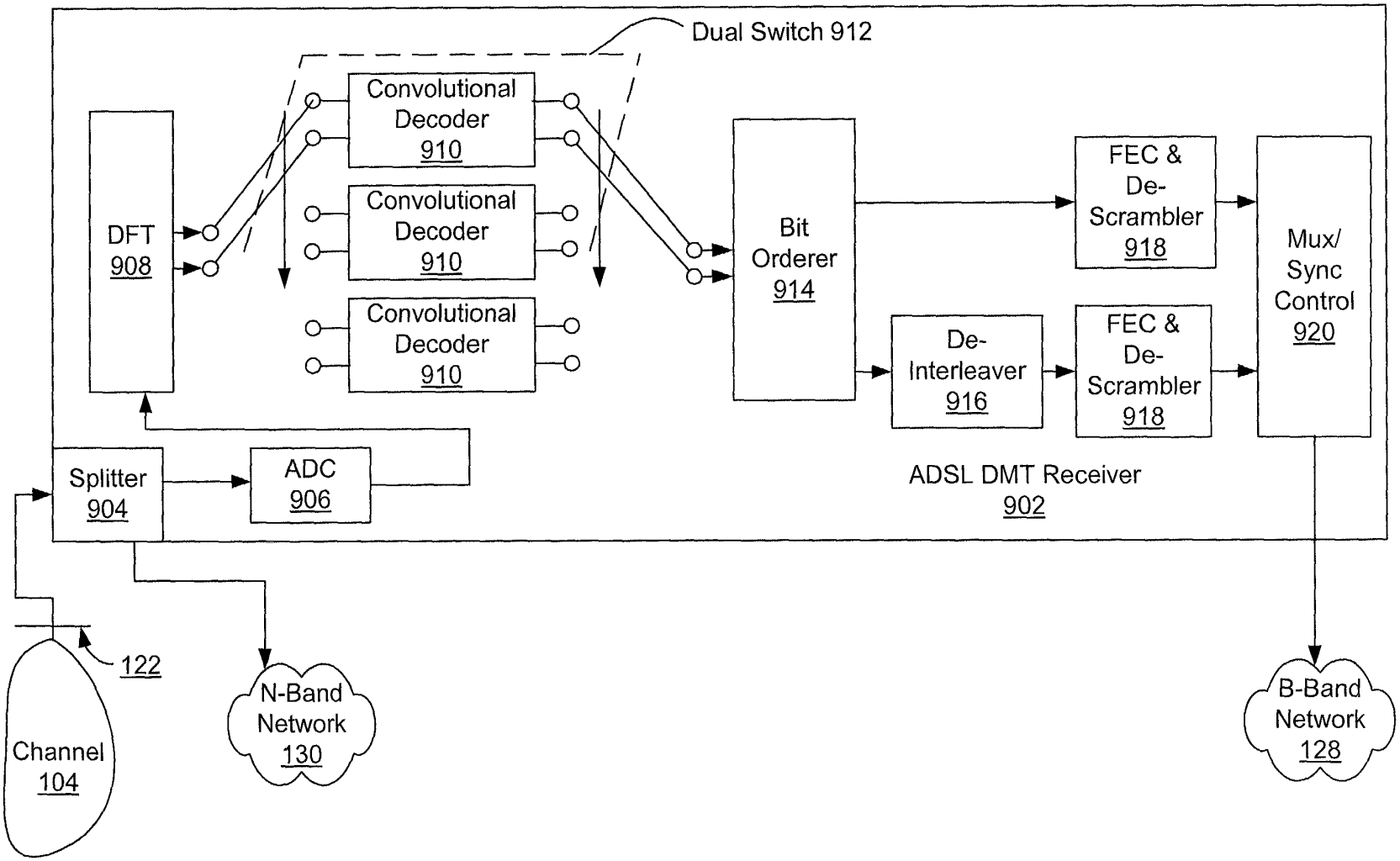
Discrete Multitone Interleaver
(Preferred Embodiment)



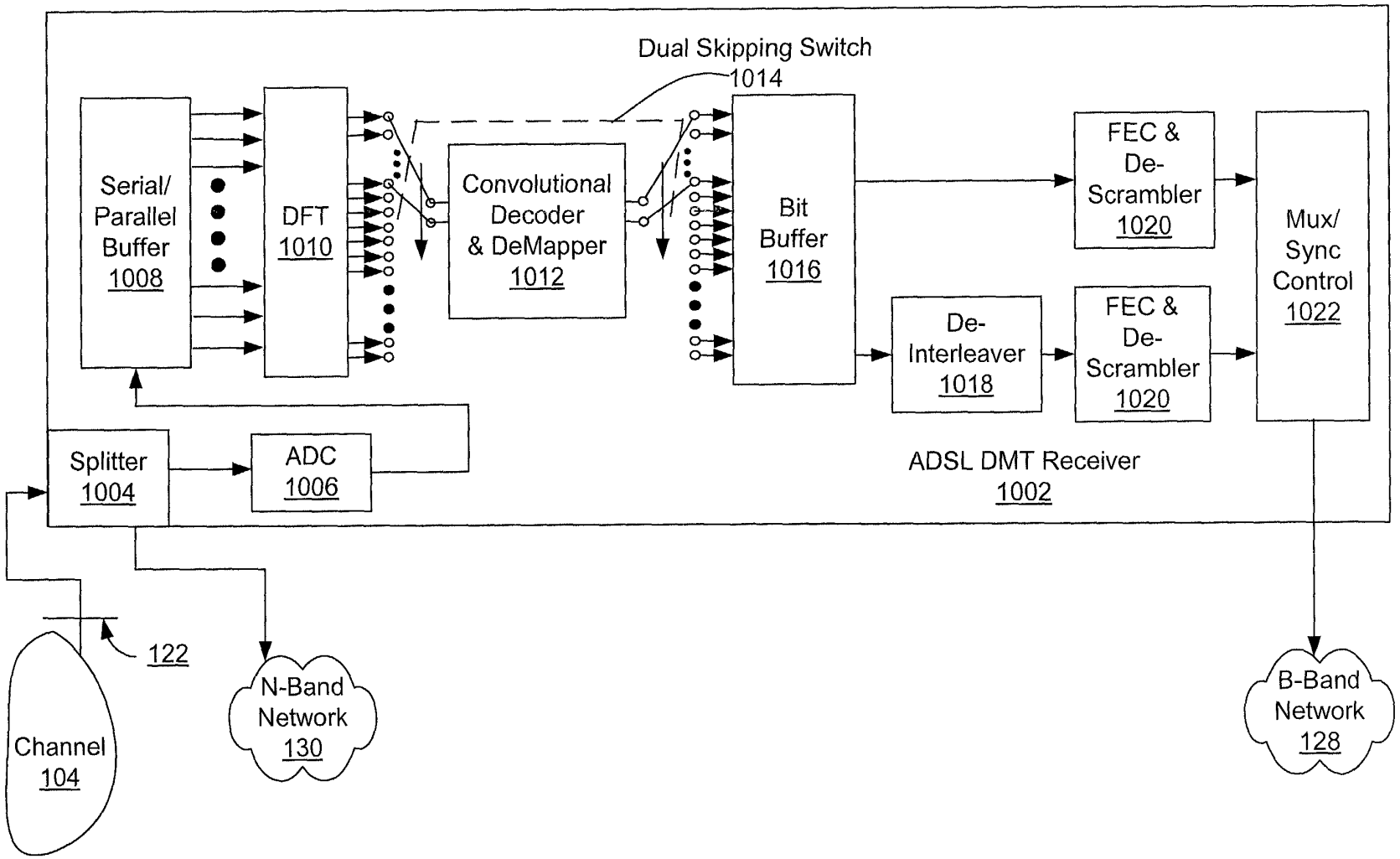
DOnT2T "E52B8260

FIG. 9

Discrete Multitone Deinterleaver
(First Embodiment)



00TE2F' E5E9E260

FIG. 10

Discrete Multitone Deinterleaver
(Preferred Embodiment)